WELCOME -

PROJECT ASSESSMENT AND EVALUATION

SOME AWESOME STATISTICS

- **$1.27 BILLION IN GRANT FUNDS ADMINISTERED BY WATER BOARDS SINCE PASSAGE OF PROPS 13, 40, AND 50**
- **$882 MILLION COMMITTED SO FAR (598 PROJECTS)**
- **$388 MILLION YET TO GO**

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ASSUMPTIONS AND PRINCIPLES

- **Recipients are committed to project success.**
- **Project assessment and evaluation helps granting agencies and recipients.**
- **Information is needed to guide future projects and document accomplishments.**
- **Utilize data that would have come out of the project anyway.**
- **Can be done within current budget.**
- **Need to include measures that capture outcomes.**
- **We are all learning as we do this.**

COURSE OVERVIEW

- **GOALS OF WORKSHOP: *WHAT, WHY, AND HOW?***
- **DESIRED OUTCOMES: GRANT MANAGERS HAVE RIGHT MIX OF TOOLS TO GUIDE IMPLEMENTATION**
- **PAEP CONTENTS AND FORMAT**
- **TERMINOLOGY: PERFORMANCE INDICATORS; TARGETS; EVALUATION AND ASSESSMENT**
- **EXAMPLE PAEPs: HANDS-ON EXERCISES**

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WHAT IS A PROJECT ASSESSMENT AND EVALUATION PLAN?

WHY ARE WE ASKING GRANTEES TO ASSESS, EVALUATE, AND REPORT PERFORMANCE AND WHAT ARE THE BENEFITS?

HOW DO WE MAKE IT MEANINGFUL AND PAINLESS FOR GRANTEES?

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WHAT?
WHY?
HOW?

- **KEY ELEMENTS AND FORMAT: Broad, statewide consistency**
- **RATIONALE: What are the benefits for grant manager and implementer?**
- **RELATIONSHIP BETWEEN PAEP, MONITORING PLAN, AND QAPP:** Three tools to evaluate performance

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What is a Project Assessment and Evaluation Plan (PAEP)?

- Documents the grantee's intended actions towards achievement of one or more goals
- A roadmap to achieve results and a tracking device for both grant manager and grantee
- Outlines information that will be collected and used to show progress, identify problems, and successes

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Logic Model

INPUTS ►► OUTPUTS ►► OUTCOMES

What we invest: $$, staff, materials, experts, volunteers, equipment

What we do, whom we reach: Assess, train, deliver services, hold workshops, collaborate

Short-term, long-term results: Learning, awareness, knowledge, skills; practices, policies; environmental, social, civic conditions

Benefits

- Have grant recipients think of appropriate data and indicators that serve them in tracking and reporting and making the project the best it can be
- Provide a basic level of consistency and predictability in reporting format, thereby making review throughout the project easier
- Provide a tool for any necessary course corrections within the budget constraints
- By documenting the right mix of indicators, learning becomes possible
- It can provide the outline for final report and identify content for quarterly progress reports

PLAN ELEMENTS AND FORMAT

- **Project Summary**
  - Project Description
  - Problem Statement
  - Project Activities (Tasks)
  - Activity Categories
- **Goals and Desired Outcomes**
- **Performance Measure Tables**

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PROJECT ACTIVITY CATEGORIES

- PLANNING, RESEARCH, MONITORING, AND ASSESSMENT
- EDUCATION, OUTREACH, AND CAPACITY-BUILDING
- HABITAT RESTORATION
- LOAD REDUCTION

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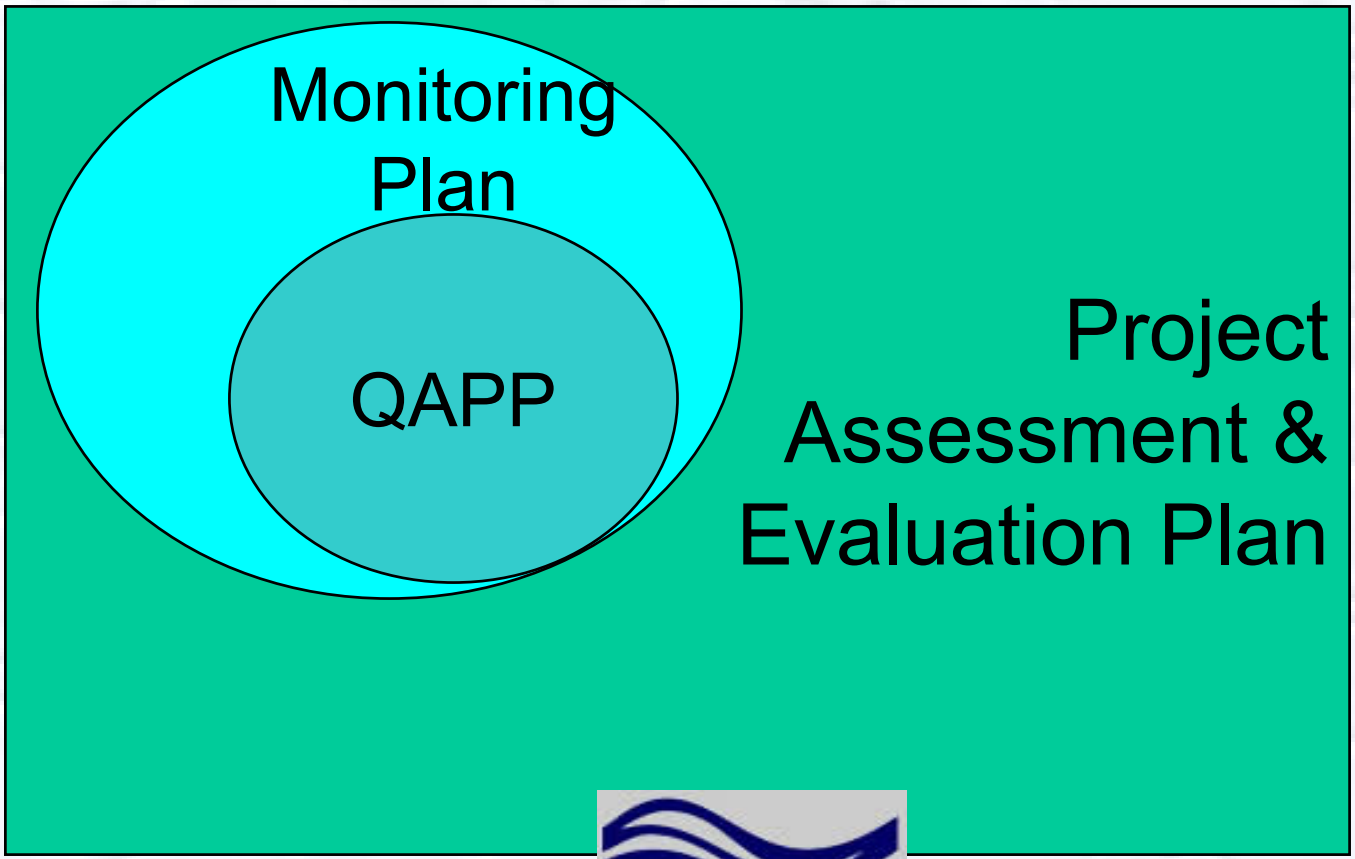
PAEP, Monitoring Plan, and QAPP – How do they differ?



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The PAEP contains ALL performance measures

- Activities and interim products (outputs)
- Change in *social and behavioral* conditions as a result of your activities (outcomes)
- Change in *environmental* conditions as a result of your activities (outcomes)

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Monitoring Plans

- Describe WHAT you intend to measure
- Describe HOW you intend to measure *environmental* outcome indicators – number and location of sampling sites, proposed approaches and methods
- Describe WHO is involved; roles and responsibilities

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Quality Assurance Project Plan

- Outlines Data Quality Objectives
- Describes staff roles and responsibilities in field, office, and laboratory quality control
- Describes procedures to control and quantify sampling, analysis, mapping, and reporting errors
- Describes HOW you intend to analyze and report information

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Assessment and Evaluation Require Data

- Project Goals
- Assessment Questions
- Indicator Selection
- Weight of Evidence – from $$ to Activity to Result
- Targets Correspond to Desired Outcomes

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What Kind of Data?

- Measures that track activities and deliverables (**Output Indicators**)
- Measures that can be linked to results (**Outcome Indicators**)
- Output and Outcome Indicators depend on Project Goals

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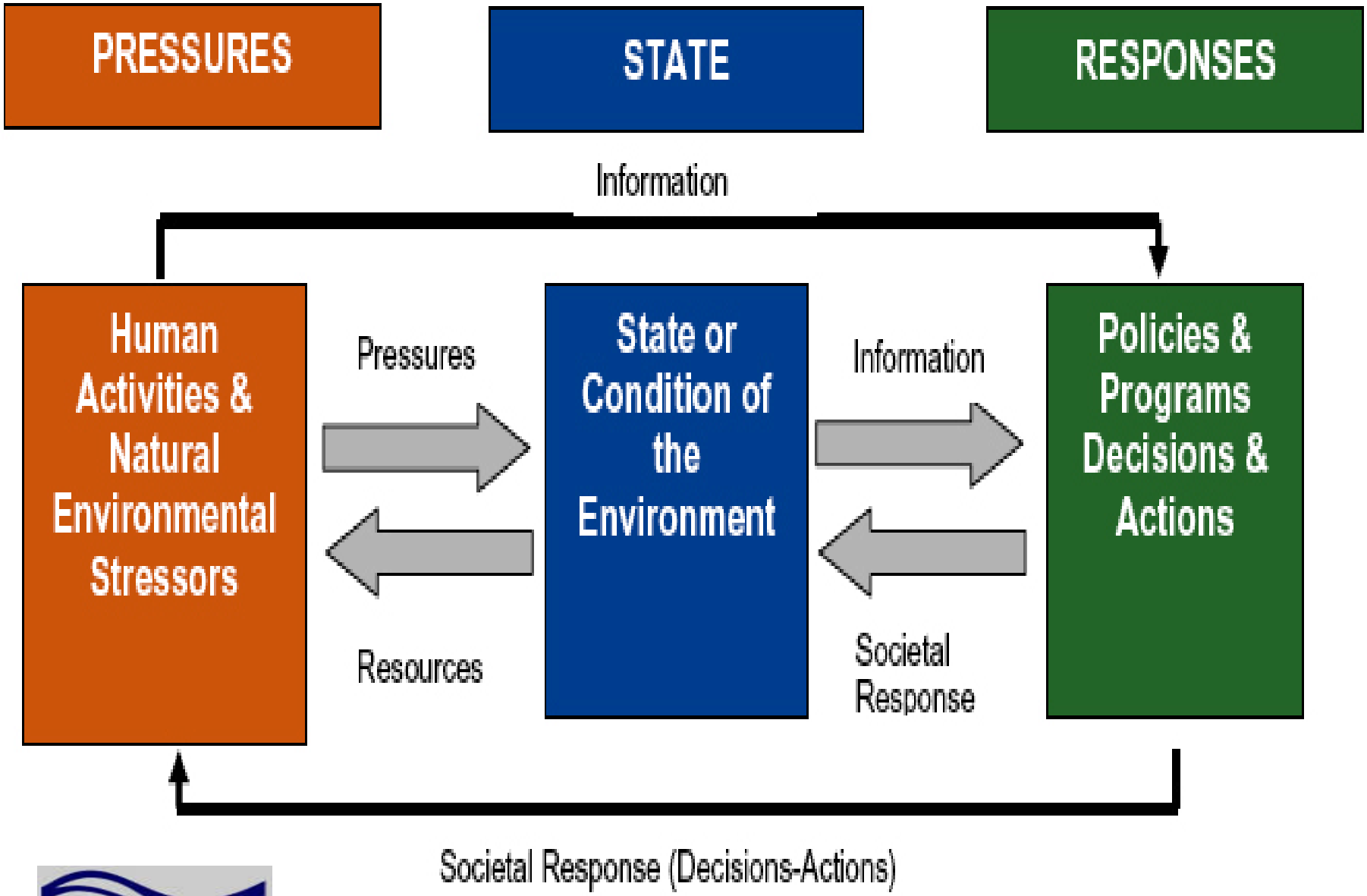
What kind of indicators do we want to use so we can show that our actions resulted in improvement?

- Conditions before and after
- Degree of stress on the ecosystem or condition of beneficial uses before and after



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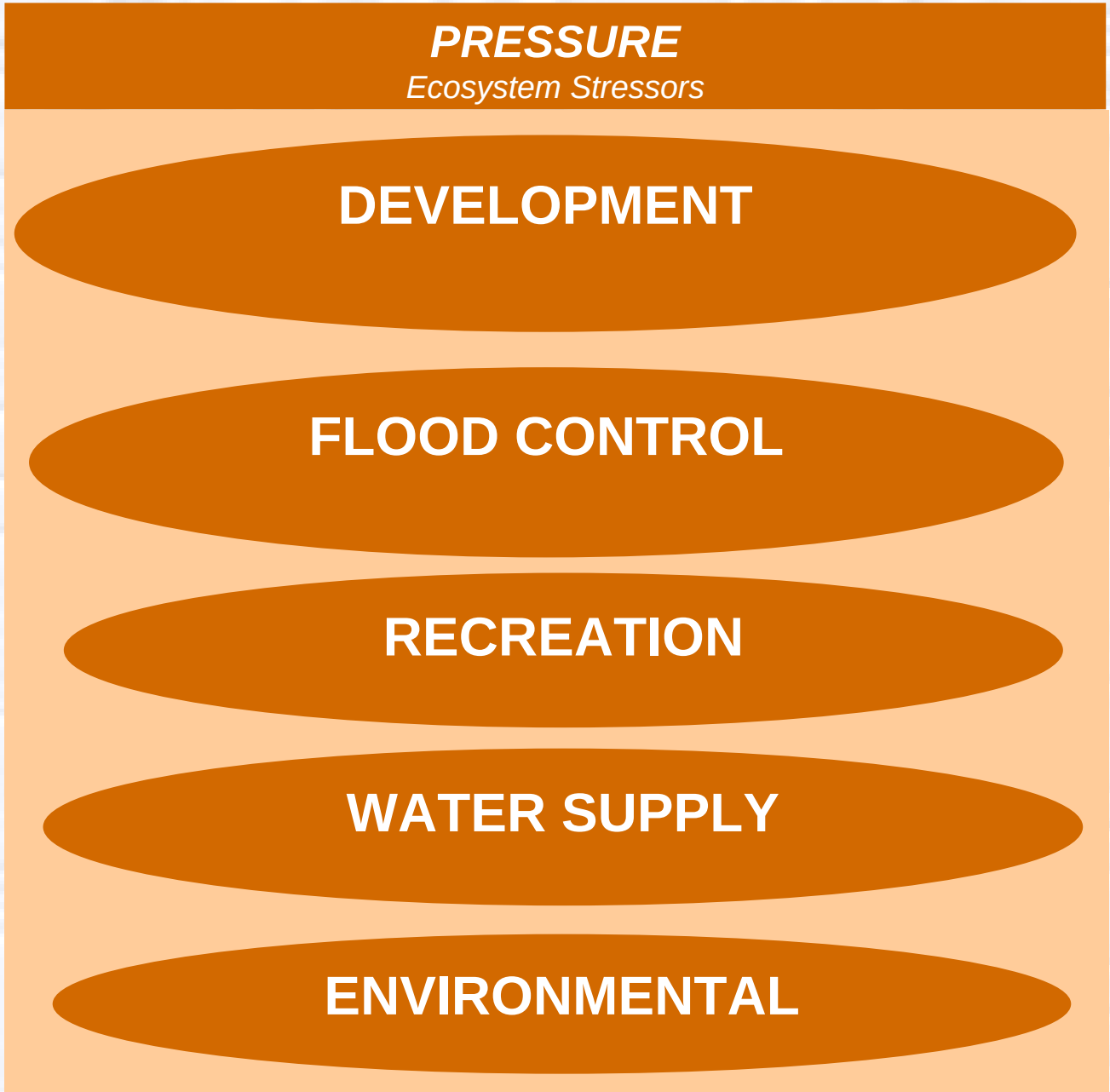
Simple Pressure-State-Response Model



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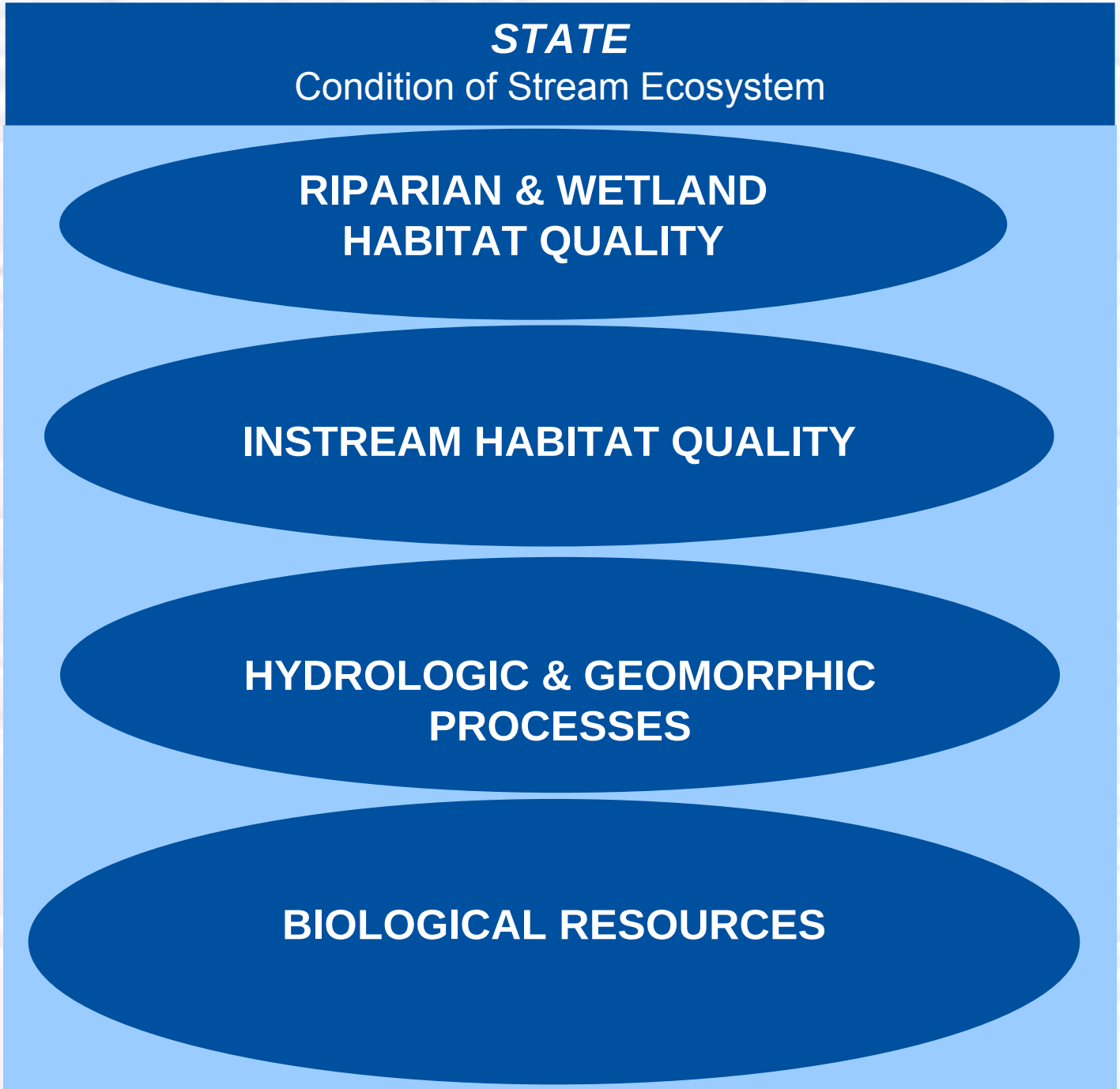

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RESPONSE

Management Actions

FLOOD MANAGEMENT

LAND USE POLICIES

RESTORATION

BMPs

LAND PRESERVATION

EDUCATION ROGRAMS

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How do we make sure the data are usable?

- They answer questions and support decisions
- They include complete parameter packages
- They are comparable with other data
- They have adequate Data Quality Objectives
- They have adequate statistical power
- They are scientifically defensible
- They are presented in accessible formats

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Ten Steps in Project Assessment and Evaluation

1. Identify Project Goals
2. Link goals with desired Outcomes
3. Frame Assessment Questions
4. Select Performance Measures/Indicators and Develop PAEP

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Ten Steps (continued)

5. Design and Implement Monitoring/Survey Plan (environmental sampling sites and locations, opinion surveys; sampling frequency)
6. Support with Quality Assurance Plan
7. Manage and Store Data
8. Analyze and Assess Data
9. Report and Communicate Results to Identified Audiences
10. Evaluate Overall Success of Project/Program

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Comparisons are essential for monitoring the effectiveness of project activities

Before vs After

Considerations: Be aware of lag times! Can comparisons be made within project period?

Paired Watersheds

Considerations: Hard to find match and/or to stagger implementation

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TERMINOLOGY

CONSISTENT USE OF TERMS:

- ENABLES GRANTEES AND GRANT MANAGERS SPEAK THE SAME LANGUAGE
- FACILITATES COMPARISONS AMONG SIMILAR GRANT ACTIVITIES ACROSS WATERSHEDS AND REGIONS
- CREATES EFFICIENCIES IN EVALUATION
- PRODUCES BETTER OUTCOMES

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PERFORMANCE

The results of an investment's activity over time; the proficiency of an entity in acquiring resources economically and using those resources efficiently and effectively in achieving outcomes

Assessment

The ongoing process of documenting, often in measurable terms, the progress of your activities (How are we doing?)

EVALUATION

A process of collecting information and keeping records that are used to demonstrate project performance and compare your achievements to your goals and desired outcomes

OUTPUTS

The goods and services produced by organizations

OUTCOMES

Results, impacts or consequences of actions, or of goods and services produced

INDICATOR

A collection of metrics expressed as a value that presents scientifically based information on the status of, and trends in, relevant metrics or parameters

METRICS

Units of measurement (data) that can be collected, monitored, and interpreted to track the progress or effectiveness of a specific action on a particular goal

TARGET

A level of performance that is sought within a given time frame. A specific and measurable aim relating to an objective

PAEP OUTLINE

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Adaptive Management

A systematic process for continually improving management policies and practices by learning from the outcomes of actions, projects and programs.

Indicator Types

Output Indicators

- ✓ Administrative output indicators track the administrative actions of a specific project.
- ✓ Project output indicators track deliverables and intermediate milestones.

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Types of Indicators, continued

Outcome Indicators

- ✓ Site-specific indicators track the simple, direct responses of specific projects or groups of projects relative to a stated goal.
- ✓ Multi-site indicators track the collective responses of groups of projects on a locality or sub-region.
- ✓ System-wide indicators track the broad, often complex responses of groups of projects on a region.

Core Outcome Indicators

- Planning, Research, Monitoring, and Assessment
- Education, Outreach, and Capacity-building
- Habitat Restoration
- Load Reduction

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Planning, Research, Monitoring, and Assessment

- Number of characterized watershed land cover/land use categories
- Number and magnitude of anthropogenic stressors identified (including extent of hydromodification; known and suspected pollution source categories)
- Adopted and peer-reviewed watershed assessment report or watershed management plan
- Peer-reviewed Monitoring Plan for TMDL implementation
- Peer-reviewed and adopted research findings
- Peer-reviewed and adopted analytical methods

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- **Adopted and peer-reviewed Restoration Plan for beneficial use recovery**

- **Adopted list of watershed-specific BMPs and restoration practices**

- **Adopted refinements to conceptual models outlining hypothesized cause-effect relationships**

- **Peer-reviewed and adopted limiting factors analysis**

- **Peer-reviewed and adopted source analysis**

Education, Outreach, and Capacity-building

- % increase in community awareness
- % increase in community participation in watershed stewardship activities
- %increase in local government expertise, resources, and management tools (e.g. GIS capacity; SOPs; public-private partnership agreements; sustained funding sources for watershed health maintenance; building codes aligned with watershed goals, etc.)
- % increase in landowners trained and certified in BMP implementation

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Habitat Restoration

- % increase in native habitat extent
- % decrease in invasive species cover
- Improvement in habitat condition or other biometric scores (e.g. CRAM, IBI)
- % increase in sustained habitat maintenance and management agreements
- % increase in watershed functions and processes resembling reference conditions

Load Reduction

- % decrease in pollutant use and/or discharge
- % increase in certified practices designed to result in reduction of pollutant inputs into listed water bodies
- % increase in benthic macroinvertebrate diversity
- % decrease in adverse effects biomarkers and toxic samples (event-based water toxicity; sediment toxicity)

Logic Model

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WRAP-UP

The three top items in project assessment and evaluation:

Goals

Goals

Goals

Key Question:

Do Output and Outcome Indicators Relate to Project Goals?